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CORN

Smut caused by Ustilago zeae.

Colorado: (Robbins) The loss from smut is greater this year than in any year that it has come under observation. No fields are free and the disease is prevalent everywhere. Counts in a number of fields show 40-60% of the plants smutted. The loss will seldom be less than 10% and in many fields will run as high as 50%. The farmers are very much concerned over the prevalence and loss from smut.

Georgia: (Berry, Sept. 3.) The weather was particularly favorable for development. Around Quitman and Thomasville many gardens show 100% infection. Disease reporters agree that the damage amounts to between 5 and 10%.

Illinois: (Stevens) Mr. G. H. Dungan reports that no count has been made but from general observations on experimental plots in adjoining fields smut seems to be much more abundant this year than last.

South Dakota: (Stahl) Severe and general at least in the vicinity of Huron and Parker. From 11 to 15% infection is not uncommon.

Pennsylvania: (Orton) The average loss from smut in fields visited in Alleghany, Clarion, Armstrong and Indiana counties is about 7%. Infection ranges from 3 to 27%.

Wilt caused by Bacterium stewartii.

Mr. F. V. Rand, Bureau of Plant Industry, reports receiving specimens, from which cultures of the organism have been secured, from points in the states of Tennessee, New Jersey, New York and Maryland. It was reported as appearing in amounts ranging from a trace to 3%. Most of the occurrences were on sweet corn but traces of the disease on field corn were reported from Tennessee.

Illinois: (Stevens) Disease reported in field of Yellow Bantam at Carthage. Nearly all plants were diseased.

Root Rot caused by Fusarium spp.

Minnesota: (Bisby) One or two reports but slight damage thus far reported.

Pennsylvania: (Orton) A survey of corn fields in Alleghany, Clarion, Armstrong and Indiana counties show that root rot is reducing the crop, not less than 15% this year. Many fields show a much higher percentage of loss. The following determinations of percentage of affected plants were made September 14 to 19: 50%, 75%, 75%, 5%, 20%, 20%, 15%. Quite a number of plants were wilted, others showed considerable firing, still others had fallen over and a large percentage of barren stocks was not uncommon in infested fields.

Rust caused by Puccinia sorghi.

Georgia: (Berry, Sept. 3.) Very general this season; practically every leaf in many fields show infection. Losses small.

Physoderma.

Georgia: (Berry, Sept. 3.) This disease is the most important one affecting corn. One hundred percent infection is common in southern Georgia. In many fields from 5 to 20% of the stalks are broken down as a result of weakening of the nodes. Where the sheath is badly infected the blade is killed and both blade and sheath are attacked by various

eventually destroying the feeding value of the fodder. The disease is also prevalent in the Piedmont and mountainous sections, particularly in the bottom lands. The loss to the corn crop of the state due to Physoderma probably is not less than 10%, and may be considebly higher.

GRAPES

Reports received from the states of New York, Illinois, Pennsylvania, Ohio and New Jersey show that the grape crop is comparatively healthy this year as compared with the normal. Only a small amount of loss from black rot is reported. Anthracnose and downy mildew do not appear to be at all serious.

Black Rot caused by Guignardia bidwellii.

Pennsylvania: (Orton) Infection of leaves in Huntingdon and Monroe counties about 50 and 20% respectively. Some rot but not as serious as some years.
Ohio: (Selby) Less prevalent than normal, although it is most serious disease of crop in the state.
New Jersey: (Cook) Common and serious in places.
New York: (Gladwin) Black rot has not been observed in the Chautauqua Belt this season.

Downy Mildew caused by Plasmopara viticola.

Pennsylvania: (Orton) Appeared seriously on berries in Northampton County, June 10. Not as general or serious in the state as usual.
Ohio: (Selby) Reported less frequently than heretofore.
New York: (Gladwin) Downy mildew the principal grape disease in the Keuka Lake Section is practically nil this season. This applies to both sprayed and unsprayed vineyards.

Powdery Mildew caused by Uncinula necator.

Pennsylvania: (Orton) Two to 5% damage in certain sections.
Ohio: (Selby) Reported less prevalent than in several years.

Crown Gall caused by Bacterium tumefaciens.

Pennsylvania: (Orton) Present to a limited extent.
New Jersey: (Cook) Occasionally reported.
New York: (Gladwin) Crown gall not observed but there are more or less vines that have been ruptured by freezing and which show a corky excrescences. These may now contain the gall organism as a secondary trouble, but the principal injury comes from the rupture.
Kansas: (Melchers) Has caused greater loss than any other disease of grapes during the past season. Loss would probably not exceed 3%.

ONION

Smut caused by Urocystis cepulae.

Colorado: (Robbins) Not prevalent. Losses this year negligible. No soil treatment practiced.
Iowa: (Cromwell) Reported from Scott County.

Massachusetts: (Osmun) Occurs throughout the onion growing sections of the state, varying in amount from 0 to 15%. Somewhat more abundant than usual. The average for the Connecticut Valley region is not over 2%. Formaldehyde treatment is in general use altho many growers do not employ any control measures.

New Jersey: (Cook) Small outbreaks reported in Burlington and Warren counties.

New York, Wayne County: (Dye) Smut is general in the county, only occasional fields being free from it. An average of 15 to 20% of the crop is destroyed. Some fields are a total loss. Soil treatment with formaldehyde is being generally introduced and was successfully practiced this season by many farmers. Smut was, also, recorded this season in Orange, Westchester and Livingston counties. The earliest report was June. 6.

Orange County: (Olive. For preliminary report by Dr. E. W. Olive on the onion smut situation in Orange County see Pl. Dis. Bul. 2:90, July 15, 1918.) On August 24 the Orange County Farm Bureau Association called a conference of growers to investigate the comparative yields of the treated and untreated onion seed on the farm of Anthony Budnick, near Chester, New York.

In treating his seed Mr. Budnick has used 1 pint of formaldehyde to 16 gallons of water, applied with the seed at the rate of about 225 gallons to the acre. He had treated 5 sets of 3 contiguous rows alternating with 3 contiguous untreated rows in a block of 30 rows. These rows were dug and the onions weighed and it was found that the rows of treated onions yielded at the rate of 45,720 pounds per acre, while the untreated rows yielded at the rate of 28,800 pounds per acre, a gain of 16,920 pounds per acre due to seed treatment for smut.

The machine used by Mr. Budnick was an ordinary three-row planter to which was attached a 10 gallon galvanized iron tank (costing about $10.00) with three-drip cocks for controlling the amount of formaldehyde solution running to each of the three planters.

Those present at the demonstration feel that in the heavily infested soils of the Wallkill Valley the onion smut problem is solved and at a very small expense.

Ohio: (Selby) Less than usual this year. Soil treatment with formaldehyde generally practiced in smutted areas.

Pennsylvania: (Orton) Prevalent in Erie County, which is the largest onion growing section in the state, causing a loss of 20 to 25% of the crop. Excellent results obtained from formaldehyde treatment. A 2% loss from smut reported in Lancaster County. Smut is almost unknown in Luzerne County where many onions are grown.

Wisconsin: (Vaughan) Not very prevalent this year and causing only a slight damage. Formaldehyde treatment generally and successfully practiced.

Downy Mildew caused by Pernospora schleidendana.

Louisiana: (Neal in C. & T. News Notes No. 25.) Causing losses in the southern portion of the state.

Michigan: (Coons) Prevalent in other years but has not been seen this season.

New York, Wayne County: (Dye) But two cases found in this county during the past two years. Of slight importance.

Ohio: (Selby) One specimen received; associated with thrips.

Washington: (Heald) One report of downy mildew from Monroe.

Wisconsin: (Vaughan) Not seen or reported this season.

Anthracnose caused by Vermicularia circinans.

Iowa: (Cromwell) Present on white and yellow varieties.
Massachusetts: (Doran in U. S. D. A. T. News Notes No. 25.) Common on white onions only in Worcester County.
Ohio: (Selby) Abundant in 1917 but not yet reported this season.
Pennsylvania: (Orton) Not serious anywhere this year so far as known.
Wisconsin: (Vaughan) Of limited importance because most of the Wisconsin onions are of the red variety, which is resistant.

Alternaria Blight caused by Alternaria sp.

Massachusetts: (Osmun) Caused considerable damage early in the season but of late has been of no particular importance.
Ohio: (Selby) One collection only, probably associated with thrips.

Neck Rot caused by Botrytis sp.

Michigan: (Coons) Usually common in the state but not yet reported this year.
Ohio: (Selby) Serious in all centers of production in 1917 but not as yet developed in 1918.
Pennsylvania: (Orton) Local, and of no great importance in Monroe, Northumberland, Huntingdon and Crawford counties.

Fusarium Rot caused by Fusarium sp.

Massachusetts: (Osmun) Observed in a few fields.
Washington: (Heald) One report from Walla Walla section.

Other Diseases.

Iowa: (Cromwell) Tip burn is very common and destructive.
Massachusetts: (Osmun) In a few fields what appears to be root injury by a species of Botrytis was observed. Much poor seed was sown, resulting in a poor stand in many fields but the crop has been unusually healthy this season and the damage in fields resulting from all diseases will be small.
Ohio: (Selby) Aspergillus niger present very generally on stock shipped from Chicago. Experiments under way deal with control by use of formalin solution as described in monthly bulletin O.E.A.S., May 17, by Van Pelt.

PEAR

Fire Blight caused by Bacillus amylovorus.

Connecticut: (Clinton) More conspicuous than for some years, but damage confined chiefly to small twigs. Considerable difference in infection shown on trees in small orchards. Reported on Clapps Favorite and Sheldon.
Illinois: (Anderson) Less in southern portion of the state than usual, some orchards being almost entirely free from it. In central Illinois blight has caused about the usual damage.
Iowa: (Melhus) Prevalent and often destructive but not very severe this year.
Kansas: (Melchers) Less severe this year than usual, probably due to extremely hot and dry weather of June which inhibited vigorous growth. The Bartlett is the most susceptible variety.

Massachusetts: (Osmun) Generally distributed throughout the state and more serious than usual.

Michigan: (Coons) More severe than last year when it was of very slight importance. Attempts to correlate prevalence of blight with insect infestation would be profitable.

Minnesota: (Bisby) Reported only from Nicolett County where the attack was slight

Nevada: (Frandsen) Observed recently on a few trees in Reno and in Washoe Valley. The disease is common on the apple but appears to be less prevalent than usual. Reported from several parts of the state, but not serious.

New Jersey: (Cook) More abundant than in 1917, but less than in 1916.

New York: (Chupp) Reported present in sixteen counties. No doubt found wherever pears are grown. Data concerning the amount of loss not easily obtainable on account of extensive winter injury. Earliest report from Seneca County, March 3.

Ohio: (Selby) About normally severe. Practically no blossom infection observed this year.

Oregon: (Owens) Rogue River Valley is the most seriously infected district. Also reported from Willamette Valley, Hood River Valley and in Wasco, Umatilla and Union counties. Probably generally distributed over the state

Pennsylvania: (Orton) More severe this year than usual, causing an average loss of over 10% of the fruit in the state. One hundred percent infection of the bearing trees in Lawrence, Cumberland and Lehigh counties, 80% infection in Indiana County. Bearing trees more seriously affected than those not in bearing. Yellow Transparent, York Imperial and Smoke House among the most susceptible varieties.

Washington: (Heald) Reported from widely separated localities in eastern Washington. Less prevalent than in previous years due to drought.

West Virginia: (Giddings) Very injurious this year in most sections of the state

Scab caused by Venturia pyrina.

Kansas: (Melchers) Of infrequent occurrence this year due to the dry hot summer

Massachusetts: (Osmun) Less common than usual.

Michigan: (Coons) Extremely common. Market pears of very poor quality.

New Jersey: (Cook) Very common.

New York: (Chupp) Reported from Columbia, Monroe, Orleans, Schoharie, Suffolk and Tompkins counties. First reported May 20.

Ohio: (Selby) About normal in development, but owing to limited fruit crop this year it has been largely overlooked by observers.

Pennsylvania: (Orton) No worse than usual. Fifteen percent loss in Lancaster County. 8% in Monroe County, and 5% in Montgomery and Indiana counties.

Washington: (Heald) Reported from widely separated localities in region west of the Cascades.

Leaf Spot caused by Septoria pyricola.

Kansas: (Melchers) Almost entirely absent.

New Jersey: (Cook) Common.

New York: (Chupp) Reported from Tompkins, Oneida, Schoharie, Erie, and Cayuga counties. First reported May 18.

Ohio: (Selby) Reported less frequently than usual, possibly explained partly by absence of frequent showers in mid-summer.

Pennsylvania: (Orton) One hundred percent infection in Tioga County. In one orchard this is the only case definitely known in the state.

Other Diseases.

Oregon: (Owens) "At several points in the state, among them Rosenburg in Douglas County, Ashland in Jackson County, Pardale in Hood River County, and Brownsville in Linn County, a serious rough bark canker has been observed on pear trees. The cause has not yet been determined but is undoubtedly doing a lot of damage in spots. At Brownsville a grower had a young pear orchard of 336 trees a few years ago. Now there are 70 trees left and he says all the others were killed by this canker."

Pennsylvania: (Orton) Crown gall is reported as affecting 2% of the trees in Montgomery, Greene and Indiana counties and 1% in Lancaster County.

Washington: (Heald) A case of blossom blight (Sclerotinia) reported from Bellingham. Winter injury reported from six widely separated localities.

PRUNE AND PLUM

Brown Rot caused by Sclerotinia cinerea.

Oregon: (Owens) Only a trace noted here and there.

Washington: (Heald and Dana) Reported from coast region in widely separated localities. One inspector estimates 25% disease.

Georgia: (Berry, September 3.) Observed destroying the crop in many home orchards. In all probability it reduced the yield 30 to 40% for the state.

Internal Brown Spot caused by Drought.

Oregon: (Owens) Common throughout the Willamette Valley and occurring to less extent in other sections. Less difficult to estimate because many affected fruits will be dried in spite of disease. As high as 25% affected fruits have been counted on a tree and one or two cases were reported in which the entire crop dropped on account of this injury.

Washington: (Heald and Dana) Considerable loss to prunes in Clarke County. Areas of dead tissue, superficial and sometimes internal, are evident probably due to water shortage.

Pockets caused by Exoascus pruni.

Montana: (Jennison, August 1.) Practically 100% reduction in yield where no spraying was given.

Minnesota: (Newhall) Disease observed as being serious in a number of small orchards. On some trees crop was practically destroyed.

Other Diseases.

Pennsylvania: (Pennsylvania News Letter, August 15.) Bacterial spot caused by Bacterium pruni found in Erie County on fruit.

Oregon: (Owens) Leaf Blight caused by Coccomyces prunophorae common throughout the state, but serious in only a few cases and these generally on high, dry ground.

POTATO

Late Blight caused by Phytophthora infestans.

Iowa: Because of the discovery of late blight in southern Minnesota a special

survey has been made in certain parts of northern Iowa to determine the extent of the disease in that state. Prof. E. H. Toole who has been carrying on the work in cooperation with Dr. Melhus reports the disease present as far west as Hancock County, as far south as Bremer and Fayette counties and as far east as Allamakee County. The infection is general and severe where potato fields are frequent and local and slight at border of area where fields are scattered. Loss is very heavy in some localities.

Massachusetts: (Osmun) Late blight has appeared in Worcester County where it was first reported Sept. 17. Infection is rather light and at time observed it has done only a little damage. Early frosts will probably prevent loss this year.

Minnesota: Mr. A. G. Newhall who has been watching potatoes in Minnesota this season with a special lookout for late blight discovered the disease in southeastern Minnesota about Sept. 9. A more intensive survey of this region showed the disease to be prevalent throughout the southern part of the state from Nobles County on the west, to Leseur County, on the north, and Winona County on the east. Potatoes are not an important crop in this portion of the state. Most of those that are grown are consumed locally, but a few carloads are shipped from some of the more important trucking centers. Considerable rot is being found in the field and complaints are being received of its development in storage. Twenty bushels were lost in a car sent to Chicago recently during the five days in transit. The County Agent in Wabasha County reports that he first noticed late blight July 17.

Pennsylvania: (Orton, Sept. 20.) Ten percent of infection found in Clarion County in a two-acre patch. Infection apparently spreading rapidly and weather very favorable for serious epidemic in this particular field. No other case found on trip through Alleghany, Clarion, Armstrong and Indiana counties, although a careful search was made in every field visited.

Wisconsin: Late blight was first reported by Prof. W. H. Wright in Barron County Aug. 14, where it occurred locally in a few fields. Since the first report the disease has spread so that it covers an area of several square miles. Another infestation was found Sept. 9 in Lincoln County on Green Mountains. These two centers of infection are the only ones that have been reported up to the present time. The loss from this disease in Wisconsin therefore will be very slight.

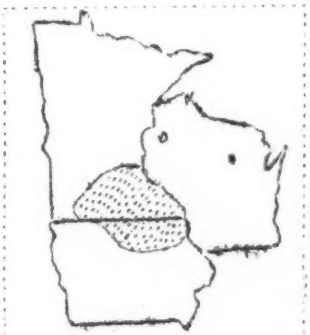

Fig. 4. Map showing area of infestation of potatoes with late blight in the states of Wisconsin, Minnesota and Iowa. These occurrences are the only ones reported to the Plant Disease Survey on late potatoes west of the state of Pennsylvania.

Black Wart caused by Chrysophlyctis endobiotica.

Dr. L. O. Kunkel who has been investigating the outbreak of this disease in Pennsylvania furnishes the following note.

"About the middle of last month black wart was discovered on potatoes in Luzerne County, Pennsylvania, by Mr. J. G. Sanders, Economic Zoologist

of Pennsylvania. The disease came to the notice of Mr. Sanders through some specimens and a letter being sent to the Department of Agriculture at Harrisburg by Mrs. Wm. Stoltz of Highland, Pa. Prof. Sanders went at once to Harrisburg and found the disease rather severe in the garden belonging to Mrs. Stoltz, and also in a number of neighboring gardens. He recognized the disease as black wart and came at once to Washington with specimens which he presented to Dr. W. A. Orton.

"During the last two weeks a hasty survey has been made of the region around Highland and the disease has been found in gardens in about ten of the smaller mining villages in Luzerne County. In some of these villages it is very severe. In others there are only a few scattering infections. It has been doing damage in most of the gardens for two years but has been severe in some gardens for the past three seasons and in a few places it has been severe for the last four years. How long it may have been there as a mild infection and unnoticed we are unable to say. Most of the villages which have the disease have been furnished potatoes by the Jeddo Supply Company for the last six or eight years. It was from this company that they obtained imported potatoes in 1912 and during previous years. The Jeddo Supply Company received its imported potatoes in turn from the Hazleton Produce Company of Hazleton, Pennsylvania. This company distributed twelve carloads of imported potatoes in 1912, and it seems probable that the disease may have been brought in at that time. The evidence is that these foreign potatoes were not used for seed but that the peelings were thrown on to the garden lands along with other garbage. We have been able to note that the disease is most severe near the back doors of miners' houses and that it is most likely to be found in places where they throw their garbage. It seems that the disease has spread from these points more or less over the entire garden in each place. The villages that have the disease are not always adjacent to each other. Sometimes there are two or three villages that seem to be entirely free of the disease in between villages where the disease is severe.

"The disease is so conspicuous that it is easy for the average grower to pick out the clean tubers from the warty ones. For this reason it is sometimes difficult to find traces of the disease where the potatoes have been put in storage and the warty ones have been disposed of. In searching for the trouble it is best therefore to inspect the field in which the potatoes were grown. The warts which are thrown on the surface of the soil at digging time turn green and grow for several weeks and it is usually possible to determine by looking over the garden whether or not the disease is present. If the garden can be inspected before the potatoes are dug or very shortly after the digging, it is best to look on the stems or stolons as these are the parts of the plants usually affected.

"There are many different ways by which the disease may be spread. Some of the more common are as follows: First, the planting of warty potatoes, or of clean tubers that have been in contact with warty ones, or grown on infected soil. Second, by the distribution of manure from animals that have been fed with diseased potatoes. Third, by the distribution of uncooked peelings from diseased potatoes. Fourth, by drainage from infected fields. Fifth, by farm implements. So far as we were able to determine the disease does not spread very rapidly.

"It is fortunate that the infected district is not a farming region. No land is cultivated except the gardens and these are usually quite small. The adjoining lands are overgrown with brush and small timber. No potatoes are sold from these gardens and there are no nurseries or

greenhouses that ship plants from this district. The greatest source of danger seems to be from the distribution of infected manure and from miners who move from one city to another, taking their infected potatoes with them. The people who live in these mining villages are for the most part foreigners."

The survey of Pennsylvania is being continued by the Plant Disease Survey in cooperation with the Office of Cotton, Truck and Forage Disease Investigations the Pennsylvania State Department of Agriculture and the Pennsylvania Agricultural College and Experiment Station. Results of further findings will appear from time to time in the Plant Disease Bulletin.

The Plant Disease Survey wishes to call attention to the fact that this region in Pennsylvania is probably not the only place in the United States where the disease exists. The twelve carloads of infested tubers distributed from Hazleton were only a small part of the 1912 shipment from abroad. Efforts are being made to trace the distribution of the original imported stock as well as other similar shipments that may have contained warty tybers, but it is probable that it will be impossible to do this fully and accurately. It is, therefore, ureged that plant pathologists begin at once to survey regions in their state where they think the disease is most liable to occur. It seems reasonable to believe that most of the imported potatoes, being of poor quality, were sold and used for table purposes in cities and industrial centers rather than in agricultural sections. The average farmer would not think of using them for seed and, furthermore, if the disease had been introduced in farming regions it would probably have been brought to attention of pathologists before this. It would seem, therefore, that the most likely place to find the disease is in the small gardens in cities, towns and industrial communities, particularly where there is considerable foreign population. It is suggested that the cooperation of war garden committees and superintendats, citizens' associations, agricultural clubs, county agents be secured and a vigorous effort made this fall to unearth this threatening and serious disease if present.

Bacterial Wilt caused by Bacillus solanacearum.

New Jersey: (Massey in C. & T. News Notes No. 15.) Specimens of what is believed to be bacterial wilt were collected July 8.

Pennsylvania: (Orton, July 31.) Specimens have been received from Indiana County. This is the first report of this disease in Pennsylvania as far as is known.

QUINCE

Leaf Spot caused by Fabraea maculata.

Illinois: (Anderson) Leaf spot caused complete defoliation of an orchard of 1400 trees near Bloomington. Observed August 3. On that date the trees had started to send out new shoots and the second crop of foliage was diseased.

SORGHUM

Covered Kernel Smut caused by Spacelotheca sorghi.

Colorado: (Robbins) Loss estimated from 1 to 2%. Very little attention is given to treatment to prevent losses.

Kansas: (Melchers) Very common. Loss for state about 5 to 8%. Many fields had as high as 40% smut. One specimen of smut on Feterita was received. In literature this host is reported as immune.

New Mexico: (Werkenthin) Found on black amber cane, Dona Ana County. Amount ranging from 6 to 10%. Also reported from Valencia and Curry counties.

Other Diseases.

Kansas: (Melchers) A bud blight on sorghum was common on many fields this past season. Cause has not been determined fully.
Montana: (Jennison) Blight caused by Bacillus sorghi found affecting leaves of sorghum that is being grown on experimental plots in Yellowstone County. In 1916 it was observed causing considerable damage in a two acre field.

SUGAR CANE

C. W. Edgerton reports the cane in Louisiana as looking very healthy and with a favorable fall a good crop should be produced. Dry weather has put it back some, but it has been growing rapidly since rains started. About the usual amount of red rot and root rot are present.

TOMATO

Fusarium Wilt caused by Fusarium lycopersici.

Alabama: (Armstrong in C. & T. News Notes No. 15.) Serious in Dallas County on soils other than the black lands. In the southeastern portion of the state the disease was very noticeable.
Georgia: (Berry, Sept. 3.) Very common over entire state. Reported in practically every county. Loss for the state will probably be about 5%. Several pounds of wilt resistant (Stone) seed were sent us by the Department of Agriculture and everyone trying this variety was pleased with the results.
New York: (Chupp) Reported present in Tompkins and Chautauqua counties.
Pennsylvania: (Orton) An average loss of 5% will be obtained. Earliana particularly susceptible. Chalk Jewel under same conditions is more resistant.
Ohio: (Selby) Quite general in tomato growing districts especially in Marietta district. Work of present season in breeding strains of tomatoes resistant to wilt is very successful.
Wisconsin: (Vaughan) Occurs in a very limited amount. Artificially infected plants in our pathological garden at Madison have partially recovered from initial attack.
West Virginia: (Giddings) Apparently destructive in many sections, particularly the Ohio River Valley.

Bacterial Wilt caused by Bacillus solanacearum.

West Virginia: (Giddings) Quite general but no reports of serious loss have been received from any place.

Leaf Blight or Nail-head Spot caused by Alternaria solani.

Connecticut: (Clinton) Common but not very destructive. Noticed on fruit this season for first time.
Massachusetts: (Krout) Very severe. Prevalent throughout eastern Massachusetts. 10 to 25% of crop will be injured. The injury results in two ways: First, by reducing assimilation and, second, the dropping of the leaves permits the fruit to sun scald.
New York: (Chupp) Reported as present in Dutchess and Tompkins counties, probably present to some extent wherever tomatoes are grown.
Pennsylvania: (Orton) Ninety-five percent of old leaves affected in Luzerne County. Not so serious as usual.

West Virginia: (Giddings) More prevalent than usual this year. In fact we have seen more of it this season than any time in the past four or five years. A large amount of fruit from Morgan County, where considerably over 200 acres of tomatoes are grown was recently examined and found to be suffering quite seriously from nail-head spot.

Blossom End Rot caused by unfavorable moisture conditions.

California: (Milbrath in C. & T. News Notes No. 22.) Causing 15% loss in 400 acres of tomatoes in San Diego County.
Iowa: (Melhus) This trouble was prevalent on early crop both under glass and out of doors.
Massachusetts: (Krout) Severe where highly nitrogenous fertilizers were used. Loss 5 to 50%.
Michigan: (Coons) Severe, causing total loss in some fields in southeastern Michigan.
New Jersey: (Cook) Abundant.
New York: (Chupp) Present everywhere in the state causing much loss.
Pennsylvania: (Orton) More serious than usual. An average loss of 7 to 8% of the tomatoes in the state. Particularly severe on Ponderosa, Stone and other varieties.
Ohio: (Selby) Most serious ever known in Ohio. Associated with severe droughty conditions, generally prevalent over state.
Wisconsin: (Vaughan) Reported as having caused some loss in the vicinity of Beloit and Janesville.
West Virginia: (Giddings) Severe locally in several sections, particularly in the Kanawha Valley.

Sun Scald caused by excessive heat.

Connecticut: (Clinton) Some complaint of sun scorch of fruit.
Minnesota: (Bisby) Injury to fruit following defoliation by blight is reported from Ramsey County.
Massachusetts: (Doran) Common on fruit of plants which have for any reason lost leaves.
Pennsylvania: (Orton) Twelve percent loss in Bucks County, more prevalent than usual and more serious than ever seen before. Stone variety particularly susceptible.
West Virginia: (Giddings) A great many gardens and fields in state show serious injury from sun scald to the fruit immediately following extremely hot weather. In some cases nearly every field was affected.

Septoria Blight caused by Septoria lycopersici.

Alabama: (Armstrong in C. & T. News Notes No. 15.) Heavy infestation observed in southeastern gardens. In one garden about 50% of the leaves had been shed because of the trouble before spraying with bordeaux was advised. The spray was holding the disease in check at the time observation was made.
Connecticut: (Clinton) Disease common.
Georgia: (Berry, Sept. 3.) Rather severe in garden patches in northern part of the state. Spraying with Bordeaux gave complete control.
Minnesota: (Bisby) Reported from several counties causing reduction in yield in some cases. Earliana especially affected. Less on late varieties.
New Jersey: (Massey in C. & T. News Notes No. 22.) Disease rapidly increasing, both in amount and extension over state. In many fields it is practically impossible to find a single plant free from the disease, and frequently

every leaf on the plant will bear one or more spots. With continuous favorable weather the fungus will undoubtedly do great damage. Striking contrasts exist between sprayed and unsprayed vines in demonstration plots.

New York: (Chupp) Abundant, especially on lower leaves of plant. In few cases the vines were an entire loss because of this disease.

Pennsylvania: (Orton) Less prevalent than usual. Most severe in Lycoming and Erie counties where it appeared late (August 15).

Western Blight cause not definitely determined.

Oregon: (Owens) This is the only disease noted on tomatoes in Oregon. Is very serious along the Columbia Basin but has not been seen south of this region. Indications are that the loss probably averages 50%.

Washington: (Heald and Dana) This is the common tomato blight of the Pacific Northwest. It has been more serious this year than last and is widely distributed throughout the state. One Yakima grower lost 4000 our of 5400 plants.

Other Diseases.

California: (Milbrath in C. & T. News Notes No. 23.) In the tomato section of Moneta, Los Angeles County "summer blight" or "brown streak" were found to be very serious. This disease offers an exceedingly important problem for investigation.

Pennsylvania: (Orton) Grand Rapids Disease caused by Aplanobacter michiganense first found in state this year. Fifty percent infection in three acre patch in Erie County. Also severe infection in Luzerne County.

Winter Blight (Bacterial) found in Centre, Luzerne, Erie and Montgomery counties. Not doing much damage except to Earliana in Centre County.

West Virginia: (Giddings) Late blight caused by Phytophthora infestans found in Randolph and Tucker counties and was reliably reported as destructive in one garden in Greenbrier County.

WATERMELON

End Rot caused by Diplodia sp.

Mississippi: (Fields in C. & T. News Notes No. 17.) Observed at Ocean Springs.

Georgia: (Berry, Sept. 3.) Some stem end rot noticed but as a rule control measures are enforced by shippers.

Wilt caused by Fusarium vasinfectum.

Georgia: (Berry, Sept.3.) In the southern part of the state wilt resulted in an average loss of 10 to 15%, sometimes small patches were totally destroyed.

California: (Milbrath in C. & T. News Notes No. 17.) A wilt disease is very severe in watermelon fields near Turlock, California. There is a leaf rolling accompanied by a yellowing of the foliage and a browning of the vascular system, particularly in the roots and crowns. The vines finally wilt and die. The exact cause is undetermined. A similar disease occurs on cantaloupes in that locality.

Indiana: (Jackson) Common in some districts. Reported from Knox and Gibson counties. Locally severe.

Anthracnose caused by Colletotrichum lagenarium.

Georgia: (Berry, September 3.) Common over the southern portion of the state. Damage varying from 5 to 15% in different sections. Does not appear to any extent in northern Georgia. In central Georgia some melons were sprayed with good results.

Indiana: (Jackson) Not so common as usual at present date (Sept. 15).

Illinois: (Stevens) Not so serious as usual. Market melons show much less than last year.

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